

Personal and Confidential for Bill Nelson, Administrator of NASA

Dear Bill Nelson, Administrator of NASA,

The attached patent is for Bill Nelson and NASA to review. It is a patent for an entirely brand-new form of space propulsion. This new space propulsion does not use chemical reaction propulsion but works from electricity that can be unlimitedly generated in space from solar cells. Space travel using rocket fuel is limited because rockets can only carry so much rocket fuel. Claim 2 of the attached patent explains the new propulsion system. It makes unlimited, faster, and safer space travel a reality. To understand the science behind this new propulsion and what the acronyms and abbreviations used in the patent stand for, require reading the full patent. A Glossary of Terms is on page 1 and 2. Claim 2, page 14 - 16 is specifically the new propulsion system. Claim 2, page 14 - 16 builds on the science of Claim 1, page 12 - 14. Claim 1 is for more efficient rotational energy storage and all other related uses. Claim 3, page 17 - 20 uses the same technology applied to Wind Turbines and likely will not be of much interest NASA except that NASA will see that the cost of electricity from wind power can be greatly reduced. The key takeaway from the science is that angular movement in revolving and/or rotating, involves moving mass(es) inward, and the revolved and/or rotated mass(es) respond by pushing and pulling outward from the axis. The devices of Claim 2, page 14 - 16 of this patent, control the direction of the new propulsion, making it so the direction of propulsion has 3 degrees of freedom; that is to travel in any direction. This technology would allow NASA to have spacecrafts that would resemble and indeed function as do the “flying saucers” of the 1950’s science fiction and operate just as flying saucers are depicted. This is real and you have the patent with its supporting science in your hands.

If you find the concepts appealing, please let me know within a week that you are giving the technology a closer review. I request that I then be provided a direct phone number and email to a specific person, so I have a strong point of contact. This technology frees NASA from the limitations of rocket-propelled travel and allow your ships to move much faster under the power of photons sent from the sun, and perhaps one day, those sent from more distant stars. This is the dream made real for NASA to travel to other worlds. This technology renders chemical propulsion obsolete as NASA will see for themselves.

Building a prototype propulsion system to demonstrate this technology would be difficult but proving the science behind it is much easier, if instead, NASA built and tested the considerably more efficient rotational energy storage system of Claim 1, page 12 – 14, that would be quick and easy to build and because the science behind Claim 1 is the same science that underpins the new space propulsion system of Claim 2, when Claim 1 proves out, then Claim 2 becomes a near foregone conclusion. Claim 1, page 12 – 14, is also of immense value to NASA since it allows for storage of power needed in different aspects of space travel.

I am available to answer any questions.

The last 3 pages of the patent (Claim 3) at this point can be skipped unless there is an interest in wind turbines. There is a Glossary of Terms on page 1 - 2, and you can jump to reading Claim 2 and Claim 1 to have an idea of how the space propulsion and the rotational energy storage systems work, but it is not possible to have any confidence in those systems without having read and analyzed the science presented earlier in the patent in The Description of the Inventions and then to read Claim 1, page 12 – 14, before moving on to Claim 2.

Thank you,

/Henry Ivers/

5/12/2021

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Henry Ivers  
73 Puritan Road,  
Swampscott, MA 01907  
781-596-0991  
Caliban333@outlook.com

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date

This letter has been modified, but not in any way changed as to substance. The changes included adding page #'s of the Patent and one sentence to make the Court's review easier. No science or statements about the Patent and/or the invention(s) have been changed.

**TITLE**

Advancements in Revolving, Rotating, Moving and/or Propelling

Inventor - Henry Ivers, 73 Puritan Road, Swampscott, MA 01907

**RELATED FILINGS AND CLAIMS OF BENEFITS**

Claim for earliest date and claim for benefits. - 5/12/2021 (app.#63187516)

**BACKGROUND OF INVENTION(S)**

The need and/or striving to advance revolving and/or rotating and/or moving and/or propelling, all, in any way of any Mass(es).

**SUMMARY OF INVENTION(S)**

The advancement(s) of revolving and/or rotating and/or moving and/or propelling, all, in any way of any Mass(es).

**DESCRIPTION OF DRAWINGS – 3 pages**

Fig. 1 – To show the direction(s) of Momentum Path of Inertia Force(s) (“MPOIFs”) and/or direction(s) of Redirected MPOIFs in revolving and/or rotating (“RR”) of mass(es).

Fig. 2 – To show that circular motion does not require an orthogonal force(s).

Fig. 3 – To show Claim 1.

Fig. 4 – To show Claim 2.

**DETAILED DESCRIPTION OF INVENTION(S)**

**Glossary of Acronyms and/or Definitions**

- 1) Applications of the Henry Revolving and Rotation Formula – AHRRF
- 2) Arrangement(s) of Structure(s) in RR – Herein, structure(s) of any type in any arrangement(s) used in any way for RR attached to and including an axis (the axis is usually at the and thought of as at the center of the RR, but the axis may be elsewhere at least in the sense that where the force is applied is other than the center of the RR system and how the RR system is secured may be other than at the center of the system) and the mass(es) that are RR can make up any part of the arrangement(s) of structure(s).
- 3) Centrifugal Force – CTFF – Herein, CTFF is identified as Redirected MPOIFs which are active real force(s) versus the erroneous scientific belief that CTFFs are apparent nonreal

force(s). This Patent shows how CTFF's direction can be made to be toward the axis and/or away from the axis using relative RR system(s) as explained in Claim 1 and CTFF's degree of strength is also controllable using relative RR system(s) as explained in Claim 1.

- 4) Centripetal Force – CTPF Herein, CTPF (gravity) exists and is integral in celestial RR, but CTPF does not exist in an integral way in the analysis of manmade RR and herein CTPF will be referred to as not existing in manmade RR and further herein CTPF in manmade RR is correctly identified as Newton 3s.
- 5) Mass(es)' Momentum Path of Inertia Forces – Mass(es)' MPOIFs – Herein is the energy in any mass(es)' RR and/or propelling and this energy may come from any source in any way, e.g., a torque from an electric motor. The Patent herein assumes the presence of energy (MPOIFs) in all the moving or propelling mass(es) and/or RR mass(es) and/or RR mass(es)' MPOIFs.
- 6) Momentum Path of Inertia Forces – MPOIFs
- 7) Newton 3s – Herein named Newton 3s because of conforming to Newton's 3<sup>rd</sup> Law. Newton 3s are non-active response forces.
- 8) Redirected Momentum Path of Inertia Forces – Redirected MPOIFs
- 9) Revolving and/or rotating – RR

The invention(s) are the "AHRRF to machine(s)" comprising general principals and/or general methods provided anywhere in this entire Patent to control and/or use and/or better use and/or newly use and/or differently use RR in any way for any purpose(s) anywhere including space of any mass(es). The Patent's parts including one and/or more Claims rely on all Patent's parts including one and/or more Claims that reasonably best support the Patent.

#1 – Machine(s) that use the general methods and/or general principles of the AHRRF, the invention(s), may be of any dimension(s), number(s), material(s), composite(s), design(s), and/or configuration(s) of whatever nature.

#2 – The Patent's writing includes the reasonable adding of "without exception and/or limitation" without exception and/or limitation whenever it strengthens any aspect of the Claim(s) and/or any aspect of the Specifications and/or any aspect of the entire Patent, all, in context of the entire Patent.

#3 - Anything described, defined, abbreviated, and/or expressed as an acronym anywhere in this Patent including Claims and Drawings applies to the entire Patent regardless of its location.

#4 - Words used singularly and/or plurally and/or as both are not meant to be definitive and are to be understood as what makes the most reasonable sense in context of the entire Patent. The meaning of all writing in this Patent including all writing and/or all indications to any Drawings are subject to error(s). All error(s) are to be reasonably best reasonably corrected based on the context of the entire Patent. “Orbiting” and/or “revolving” are to have the same meaning. “Revolving” is usually used herein to describe mass(es) revolving around an axis that is outside itself, e.g., the moon around the earth. “Rotating” is usually used herein to describe an object rotating around an internal axis, e.g., the earth rotates. The general usage of the words, revolving and/or rotating includes much overlap. This Patent uses revolving and/or rotating (“RR”) to describe most everything that involves either revolving and/or rotating and/or both. Which word(s) sounds correct and/or more natural can be a factor. The meaning of these two words alone and/or together in this Patent are to be what makes the most reasonable sense that reasonably best the Patent in context of the entire Patent. All meanings and/or inferences and/or interpretations are to be what reasonably best supports the Patent and/or the Claims in context of the entire Patent. The Patent’s attached Drawing(s) are fully part of the Claims and/or Specification(s).

#5 - The Patent Claim(s) are monopolistic because the AHRRF to machine(s), the invention(s), to an unimaginably novel standard, comprise general principles and/or general methods of RR and/or propelling and/or moving used in the Claim(s) and because the Claim(s) disclose at least one way to carry out the invention(s), the Patent and/or the Claims claim the right(s) to “all ways to carry out the invention(s)” (David Kahn Inc. v Conway Stewart (1974) RPC 279, pages 319 and 320). The AHRRF to machine(s), the invention(s), identified the problem(s) of unknown internal resistance(s), Redirected MPOIFs, in RR and the invention(s) apply general methods and/or general principles to usefully control and/or usefully use and/or improve a useful use and/or usefully mitigate the Redirected MPOIFs for propelling and/or moving and/or RR, all, for any purpose in any way of whatever nature, thus the patent claims all solutions to the problem(s) (David Kahn Inc. v Conway Stewart (1974) RPC 279, pages 319 and 320).

#6 - The AHRRF comprise different analyses of centripetal force ("CTPF") and centrifugal force ("CTFF). In celestial orbiting (revolving), CTPF is scientifically correctly identified as a real force (gravity) but CTFF is erroneously identified as an apparent (non-real) force when it is an active real force. In manmade RR, CTPF (tension) is erroneously believed an active real force when it is a Newton 3. In manmade RR, CTFF is erroneously believed an apparent nonreal force when CTFF is a real active force(s). CTFF in celestial RR and/or manmade RR cause internal resistance force(s) that are losses of energy to the mass(es)' MPOIFs. This is because of mass(es)' MPOIFs (see Fig. 1) naturally trying to move tangentially straight are forced inward to a circular path. These internal losses of energy of mass(es)' MPOIFs become Redirected MPOIFs (Fig.1) that pull and/or push orthogonally outward away from the axis. These Redirected MPOIFs pull on all mass(es) closer than themselves to the axis and push on all mass(es) further away from the axis than themselves. CTPFs are not real active forces in manmade RR as believed. CTPF does not exist in manmade RR and what is mistaken for CTPF are the result(s) of mass(es)' MPOIFs interaction(s) with arrangement(s) of structure(s) (could be thought of as arm(s) and/or other structure(s) that secure mass(es) to and including a stationary (relatively speaking) axis) and these interaction(s) are what force(s) manmade RR. Manmade RR occur because it is the only possible movement in manmade RR. In manmade RR, the mass(es)' MPOIFs lose energy because of internal resistance(s) but celestial orbiting is different because even though there are internal resistance(s) resulting in Redirected MPOIFs that would cause losses of angular velocity, in celestial revolving, gravity (CTPF) because of being a present real active force in celestial orbiting, also offsets these losses by accelerating the celestial mass(es) by the same pulling. In manmade RR, there is no CTPF (gravity) to offset the losses of angular velocity from the internal resistance(s). CTFF is not a new force that enters the RR system(s), CTFFs are the mass(es)' own MPOIFs colliding and/or pressing against the figuratively immovable walls (which is the figuratively circular wall of Fig. 1 and Fig. 1 only shows 1 circular wall, but it is to be understood from this writing here that there are figuratively endless concentric circular walls) that are immovable in that the walls cannot move outward from the axis in typical manmade RR. The mass(es)' MPOIFs are colliding and/or pressing against the figuratively immovable circular walls at continuous and consistent minuscule angles on the immovable walls' concave sides. This colliding and/or pressing against the immovable walls continuously force (results in turning) the mass(es)' MPOIFs inward from their straight

tangential path(s) at every instant to the circular path. The mass(es)' MPOIFs however are never any more inward to the axis and/or any closer to the axis because the circular path(s) is also neverendingly inward to the same degree. The circular path occurs in manmade RR not because of CTPF which does not exist in manmade RR but occurs because of the interactions of the RR mass(es)' MPOIFs and the "arrangement(s) of structure(s)" attached to and/or including the axis. These interactions result in the arrangement(s) of structure(s) including the axis providing "Newton 3s". Newton 3s provide equal and opposite responsive force(s) (not real force(s) in the sense that they are not active force(s)) to the real active force, CTFF. CTFF although a real and active force is not an outside force. CTFF comes from the only active force present in manmade RR, which is the mass(es)' MPOIFs. CTFFs are Redirected MPOIFs (see Fig. 1). Manmade RR avoids friction because the figuratively circular and/or immovable walls move with the mass(es)' MPOIFs. Friction is reduced at the axis from mechanical efficiencies and because the stress outward is generally balanced around the axis. Newton 3s expend energy in degrading of the structure(s) they are part of and in this way Newton 3s could be seen as real force(s), but not active force(s) in manmade RR. Newton 3s are not only the last structure(s) that seem to do the opposing but are everything that holds and/or makes possible the Newton 3s being Newton 3s. These internal energy losses in manmade RR are not offset as in celestial RR and this explains why, "rotational mechanical energy storage systems" have poor efficiencies. The longer the energy is stored in these systems, the more time the internal resistance(s) (Redirected MPOIFs) are draining the RR mass(es)' MPOIFs' (energy) into stress(es) within the RR system(s). The AHRRF to machine(s) use the same math formulas for CTFF and/or CTPF formulas as currently used,  $mv^2/r$  in but to describe what are different force(s) than believed except for CTPF (gravity) in celestial RR that is correctly identified. The AHRRF to machine(s), the invention(s), control the degree of strength and/or direction of Redirected MPOIFs (CTFF) relative to the interaction(s) RR system(s) that are part of one another and there is no limit on the number of system(s) that may be part of each other and/or one another.

#7) The AHRRF to machine(s), the invention(s), show that nonrectilinear movement (angular momentum) and/or manmade torques and/or manmade RR are not closed (conserved) systems as believed. Nonrectilinear movement (angular momentum) and/or manmade torques and/or manmade RR are all linear forces that due to interaction(s) of their RR mass(es)' MPOIFs' with arrangement(s) of structure(s) are forced to present as nonrectilinear movement

and/or torques and/or RR, losing their own energy contrary to belief to internal resistance(s). Nonrectilinear movement (angular momentum) and/or manmade torques and/or manmade RR are linear force(s) only presenting as currently described and/or defined. The internal resistance(s) result from the portion of their movement that is forced inward to their circular and/or curved paths. The nonrectilinear movement toward their axis is inward even though their distance(s) to their typical thought of center axis remains the same. Such nonrectilinear movement requires energy. The movement is inward from the tangential straight path that the mass(es) would naturally move along. In nonrectilinear movement and/or torques and/or RR of mass(es), the mass(es) would move outward to go naturally straight if not otherwise forced. Mass(es) under a force, such as RR mass(es)' MPOIFs, move circularly in manmade orbits not because of CTPF which does not exist in manmade orbits but from the interaction(s) of RR mass(es)' MPOIFs (active force(s)) with manmade arrangement(s) of structure(s) that have no active force but together force RR as the only possible path because the RR is easier (requires less energy) than the mass(es)' MPOIFs only other alternative of not moving which cannot happen because not moving requires more energy than moving in manmade RR. The mass(es)' MPOIFs RR are because those path(s) best conserve energy which mass(es) under a force (mass(es)' MPOIFs) will always do, but unlike the flow of electricity, the mass(es)' MPOIFs do not seek the path of least resistance, they seek only the path of least immediate resistance.

#8 - This Patent does not rely on the following, but science should consider that momentum likely has physical manifestation(s) within moving mass(es). Physics determines momentum by mass and velocity but without being physically manifested in mass(es). Momentum is likely better seen as remaining acceleration. When a mass is accelerated, parts in the atoms and/or orientation of RR in the atoms and/or interrelationships of atoms and/or their parts would be moved oppositely to the acceleration and would remain as such and only be reversed by resistance to that acceleration.

#9 - Manmade RR and/or angular momentum are not closed and/or conserved systems as believed because there are internal resistance(s). This erroneous science is in likening manmade RR to celestial orbiting. CTPF (gravity) exists in celestial orbiting but not in manmade orbiting. CTFF exists in manmade RR and in celestial orbiting but in both cases, it is scientifically believed to be nonreal apparent force(s) when CTFFs are real active force(s). CTFF slows down the angular velocity of manmade mass(es) in RR and CTFF slows down the angular velocity of

orbiting mass(es) in celestial orbiting, but in celestial orbiting the result is different. In celestial orbiting because of CTPF (gravity) exists, gravity also offsets the losses of angular velocity by its pulling. Therefore, in celestial orbiting, gravity (CTPF) causes the Redirected MPOIFs (CTFF) that slow the celestial mass(es)' angular velocity but gravity (CTPF) also offset the loss of angular velocity it also caused by accelerating the celestial mass(es) with its pulling. Whether celestial orbiting is or is not a closed and/or conserved system(s) depends on point of view but there are opposing forces versus gravity (CTPF) being believed to be the only active force. Manmade RR is clearly not closed and/or conserved since there is no offset to the internal resistance(s). This is evidenced by the lack of efficiency in "rotational mechanical energy storage system(s)" despite the use of magnetic bearings to reduce friction and/or operating in a vacuum to avoid air friction and/or air resistance. Internal resistance(s) in manmade RR are not offset by what does not exist in manmade RR, CTPF. If small round atoms are depicted next to each other inside the figurative circular wall and circular path of Fig. 1, it is evident why CTFF is orthogonally outward. Physics' erroneous science in angular momentum and/or RR also likely resulted by analyses that were axes centric. Such axes centric analysis is evidenced by physics' erroneous belief that circular movement requires an inward radial force toward the axis. Correctly, any skewed constant vector acting on another unequal vector results in circular motion. The only difference is if the force(s) are radial to the axes then the axes are points and when the force(s) are not radial, the axes are circles either within or outside the circular path depending on whether the force(s) are pulling or pushing (see Fig. 2). The circles of Fig. 2 should be further analyzed as being able to be so close to each other as to be literally one circle which is the reality of manmade RR. This is because the arrangement(s) of structure(s) attached to and/or including the axis allow no other outcome in their interaction(s) with the RR mass(es)' MPOIFs, other than the RR mass(es) moving along the exact circular path, making it so the 2 circles of Fig. 2 are just 1 circle because the exact circular path is the RR mass(es) only possible path. CTFF (Redirected MPOIFs) causes tension and/or energy loss in manmade RR but it is erroneous that tension alone is an active force, and AHRRF identifying these errors led to great and unimaginably novel opportunities.

Another way to visualize a RR system is to substitute "the interaction of RR mass(es)" MPOIFs with arrangement(s) of structure(s) attached to and/or including an axis" with an example using a circular ice rink. The circular ice rink has a smooth circular wall. This RR

example does not use arrangement(s) of structure(s) attached to and including an axis but substitutes for that, an ice rink's smooth circular wall. Substitute a motorized ice vehicle for the RR mass(es). The motorized ice vehicle has a curved side that allows it to be flush with the circular ice rink's wall. Likening the ice vehicle to RR mass(es)' MPOIFs, the ice vehicle naturally tries to move straight, the ice vehicle pushes directly forward but the ice vehicle is forced to move circularly. This can be described in two ways, first, is physics' erroneous description that the tension(s) in the wall of the ice rink provide the force(s) to continuously force the ice vehicle inward to the circular path. This is erroneous. This 2<sup>nd</sup> description is correct because the ice rink's wall has no active force(s) to force(s) the ice vehicle inward to the circular path. An inert ice rink's wall cannot exert a force any more than a person could without moving. The force(s), forcing the ice vehicle inward to the circular path are the ice vehicle's own internal resistance force(s), Redirected MPOIFs (CTFF) (see Fig. 1) forcing the ice vehicle inward by the ice vehicle's internal resistance(s) pushing against the ice rink's wall that use the ice rink's wall as a Newton 3(s) (equal and opposite inactive response force(s)), making it so the ice vehicle's own force(s) forces (forcibly diverts) the ice vehicle to the circular path and this expends energy from the ice vehicle, evidenced by the ice vehicle itself pressing against the ice rink's wall due to internal resistance(s) that result from the ice vehicle wanting to go naturally straight but being forced to force itself inward which the ice vehicle also resists. The internal resistance(s) are like the question, which came first, the chicken or the egg, because the 2 internal resistance(s) and/or the two sides of the same internal resistance(s) exist only because of the other and without seeing both sides of the internal resistance(s) that fight each other, the system cannot be analyzed. The analysis can lead to the Redirected MPOIFs (CTFF) being formally divided into 2 parts based on their being 2 different sides of the same internal resistance(s) and/or 2 different internal resistance(s) but pursuing the analyses in this manner adds little practical value for this Patent at this point and this is left here. So, the ice vehicle's pressing against the ice rink's wall is because the ice vehicle tries to go naturally straight, so the internal resistance(s) are there and want to push outward and the inert ice rink's wall are Newton 3(s) to the ice vehicle's outward force. The resistance(s) without clear thinking can easily seem to start at the ice rink's wall, but the ice rink's wall would not naturally resist if the ice vehicle's own internal resistance(s) were not causing the ice vehicle to push and pull outward with force(s). It is the ice vehicle internally resisting moving circularly and also the ice vehicle under power having no option but to move

circularly because moving circularly expends less energy of the MPOIFs than not moving. This is why the ice vehicle will press against the ice rink's wall. The outwardly immovable ice rink's wall makes the circular path possible, but it offers no active force to cause it. The ice rink's wall is an inert stationarily secured structure that is part of the RR system(s) that is necessary to the circular movement, but it is not an active force as science currently views it. The ice rink's wall, (arrangement(s) of structure(s), was a necessary part of the circular movement but the ice rink's wall was not an active force and therefore the ice vehicle lost its own energy. The ice vehicle was hindered by the ice rink's wall but only in as much as the ice vehicle was pushing and pulling outward against the ice rink's wall. The ice rink's wall, the Newton 3(s), uses and loses its own energy but its energy like with any inert mass(es) went to remaining the same, and this caused tension and physics mistakenly believes that the ice rink's tension did the ice vehicle's work of forcing itself inward, but this is erroneous, and the ice rink's wall's tension/stress went to degrading the structure(s) of the ice rink's walls in the ice rink's wall remaining fixed. There is no closed and/or conserved system here as believed by physics. The ice rink's wall used energy to resist to remain the same which results in its own internal resistance(s) (tension/stress) that causes some aspect(s) of itself to degrade. Forcing the ice vehicle inward required an active force which must come from the ice vehicle's MPOIFs, the only active force present. This is no difference from a physics standpoint than the interaction of the mass(es)' MPOIFs with arrangement(s) of structure(s) including an axis that are at work in more typical manmade RR and the ice rink example. The Newton 3(s) are non-active response force(s) that the ice vehicle and/or RR mass(es) use to force themselves inward by colliding and/or pressing against ice rink's wall and/or arrangement(s) of structure(s) attached to and including an axis respectively that result in the circular path. The RR mass(es)' MPOIFs interacting with the arrangement(s) of structure(s) including the axis result in Newton 3(s). The ice rink's wall provides non-active responsive Newton 3s. This ice rink example makes it clearer that the ice vehicle is stopped from moving outward by the ice rink's wall that allows the ice vehicle to force itself inward, but the same physics apply, although harder to see in more typical arrangement(s) of structure(s) attached to and including an axis that allow for the presence of figuratively endless circular walls in manmade RR that act as endless immovable circular walls. The ice vehicle's MPOIFs' and/or the RR mass(es)' MPOIFs are the only active force(s) in manmade RR. The ice vehicle and/or RR mass(es) naturally try to go straight but are left no choice but to force themselves inward to

the circular path since it is easier to move in this way (expending less energy) versus not moving. Another error would be in thinking the ice vehicle's outward force is cancelled out by the ice rink's wall's Newton 3 and the ice vehicle can in that case travel circularly without losing energy but that forgets that the ice vehicle already had lost its energy into having that outward force that was equally met by the Newton 3. The tension(s) of Newton 3s are what physics erroneously teaches are the active force(s), CTPF, in manmade RR. Newton 3s do not supply an external force(s) (the falsely believed existence of CTPF in manmade RR) externally because they have tension(s), their tension(s) are because of being stressed by Redirected MPOIFs (CTFF), an active real force(s) (not an apparent force as scientifically believed), that comes from the RR mass(es)'s MPOIFs. Newton 3s are non-active responsive non-real apparent forces that cannot cause stress but are only stressed (having tension) because of being stressed by the real force, Redirected MPOIFs (CTFF).

Seeing internal resistance(s) in RR may be made more difficult because the RR mass(es)' MPOIFs lose energy fighting internal resistance(s) (Redirected MPOIFs) that come from themselves, the mass(es)' MPOIFs. The internal resistance(s) are that the mass(es)' MPOIFs naturally trying to go straight but being forced to move circularly which they naturally resist because moving circularly in addition to moving straight also includes moving inward, and the inward part of the movement (nonlinear movement) requires the expenditure of energy which is why the mass(es)' MPOIFs naturally resist. The RR mass(es)' MPOIFs move circularly despite these internal resistance(s) because it requires less energy to move circularly than their only other alternative of not moving which would expend more energy, so the RR mass(es)' MPOIFs move even though there are resistance(s). The Inventor believes that CTFFs are highly likely entirely Redirected MPOIFs, but due to the complexities in analyzing all the facets of RR, it could be different. The inventor believes if it is different, it is also highly likely that it would benefit the invention(s) further. The general methods and/or general principals of all Claims are fully claimed based on the machine(s) of the Claims working in any reasonable way for any reasonable purpose even if one and/or more of the inventor's general methods and/or general principles are unaccepted and/or proven incorrect by the established science community. These invention(s) are so novel, that there is no one that could be said to be skilled in the science, so it could be years and/or decades before there would be any possible consensus. The best proof of the general methods and/or general principles is in the invention(s) working which is the certain

expectation based on the scientific understanding of this Patent using the machine(s) of this Patent that use the application(s) of the general method(s) and/or general principal(s) of the AHRRF as explained throughout the Claims and/or Specifications and/or entire Patent.

## Claims

**Claim 1:** Claim 1 is monopolistic for the reasons covered in the DETAILED DESCRIPTION OF INVENTION(S) and throughout the entire Patent including the Claims and Claim 1 is the “AHRRF to machine(s)”, the invention(s) comprising general principals and/or general methods provided anywhere in this entire Patent to control and/or use and/or better use and/or newly use and/or differently use RR in any way for any purpose(s) of any nature(s) literally anywhere in the universe including all space, and Claim 2 is the AHRRF to machine(s), the invention(s) using the general principle(s) and/or general method(s) of Claim 1 for moving and/or propelling, and Claim 3 is the AHRRF to machine(s), the invention(s) using the general principle(s) and/or general method(s) of Claim 1 applied to wind turbines, and the AHRRF to machine(s) uses the same mathematical formula for calculating CTFF(s) except that CTFF(s) is by the AHRRF to machine(s) now known to be real force(s),  $mv^2/r$ , that indicates that at any same given rpm, the longer the radius the greater the CTFF(s), e.g., if the radius' length is doubled at any given rpm the CTFF(s) doubles and if the radius' length is tripled at any given rpm the CTFF(s) triples because velocity is squared and the same proportionally changed radius is an unsquared divisor and because when RR mass(es) are forced inward from their tangential straight path(s) at higher velocity in the same circular path, the AHRRF to machine(s) indicates the greater the CTFF(s) will be and CTFFs are Redirected MPOIFs, indicating the greater the losses of energy to the RR mass(es)' MPOIFs, so, if a shorter radius is used in RR mass(es) at the same rpm, the RR mass(es) are forced inward at less velocity and their mass(es)' MPOIFs lose less energy to internal resistance(s) (Redirected MPOIFs), and in Fig. 3, if the individual mass(es), the B-s that are secured to A, the “large revolving system” are individually rotated at the same given rpm in the same turning direction that A, the “large revolving system” revolves, this will result in the CTFF of the entire system (“B-s' rotation and A's revolving”) being reduced because the large revolving system, A, in respect to the revolving of the B-s will not generate any CTFF because the B-s are forced inward (rotated) from their tangential straight path(s) at the same given rpm in the same turning direction that A, the large revolving system would have to otherwise force the B-s inward (results in turning the B-s inward) by its revolving, so A is now free of that energy expenditure, which can be a very significant savings of energy as compared to A having to do the forcing inward itself, because A has a longer radius and would cause greater Redirected MPOIFs (CTFF(s)) which would cause greater losses of the energy of the RR mass(es)' MPOIFs into

Redirected MPOIFs (CTFF) and because the Redirected MPOIFs (CTFF(s)) are internal resistance(s) that are losses of energy of the RR mass(es)' MPOIFs, and because of science not realizing that there are internal losses in RR and not addressing these internal losses are the reason(s) that rotational energy storage system(s) have remained inefficient (except for very short time periods) even with the use of magnetic bearings at the axes to reduce mechanical friction and/or with operating in vacuums to avoid air friction and/or air resistances and for evidence of this new science being correct, consider that in the celestial RR of planets and their moons, 80% of the time, the planets and moons are in synchronous RR, i.e., the moons are rotating on their own axis in the same time as they are revolving the planet, and it can be reasonably reasoned that this is because synchronous systems use less energy (more efficient), and in the AHRRF to machine(s) in RR, the strength(s) and/or direction(s) of the Redirected MPOIFs (CTFFs) are controllable, e.g., starting from the synchronous revolving of A and the rotating of B-s, as the rpm of the B-s rotations are increased in the same turning direction beyond the rpm of A, the B-s' MPOIFs will push and pull increasingly harder orthogonally toward the axis of A, because the B-s' MPOIFs resist harder as the B-s' MPOIFs' direction(s) are forced harder outward (results in the turning of their force(s)) by the revolving of A which are bringing the MPOIFs of the B-s to the circular path of A (herein new is "CTFF(s) being defined to include that CTFF(s) can be made to push and/or pull toward the axis" in relation to relative systems of RR, and oppositely, starting with synchronous revolving of A and the rotating of the B-s, as the rpm of the B-s are continually decreased through the B-s' rpm being stopped and then as the B-s' rpm are continuously increased in the opposite turning direction of the rpm of A, the B-s' MPOIFs will increasingly pull and push harder outward orthogonally away from the axis, because the B-s' MPOIFs will resist harder as the B-s' MPOIFs' are forced harder inward (results in turning their force(s)) by the revolving of A which is bringing the MPOIFs of the B-s to the circular path of A, and this analysis has focused thus far only on what happens to A because what follows likely would have made the above description more difficult and/or confusing, so, it is added here, synchronous revolving and rotation is even more benefited than shown above because not only do the B-s synchronous rotation eliminate the CTFF(s) of A's revolving in respect to the B-s, but the B-s' rotations also benefits because the CTFF(s) due to the B-s' rotations is also lessened by the revolving of A, because A is partly doing the turning inward of the B-s' mass(es) for the B-s' rotations which is proportional to the radius of a B

divided by radius of A and this reduction of CTFF(s) applies to and/or benefits all the B-s, so, synchronous revolving and rotation is even more advantaged but as RR depart from being synchronous the struggle(s) of the B-s radially pushing and/or pulling toward or away from the axis of A, increasing develop but with this very fortunate effect that the B-s are able to be controlled to push and pull harder or to push and pull less hard either towards or away from the axis of A and although invention(s) have been explained in relation to a general embodiment of the invention(s), it is to be understood that many possible modifications and variations can be made without departing from the spirit and scope of the invention(s).

**Claim 2:** Claim 2 is monopolistic for the reasons covered in the DETAILED DESCRIPTION OF INVENTION(S) and throughout the entire Patent including the Claims and Claim 2 is the “AHRRF to machine(s)”, the invention(s) comprising and incorporating where reasonably applicable the general principals and/or general methods provided in Claim 1 and/or anywhere in this entire Patent and Claim 2 adds and/or includes more general principle(s) and general method(s) to control and/or use and/or better use and/or newly use and/or differently use RR in any way for the purpose(s) of moving and/or controlling moving and/or propelling and/or controlling propelling of any mass(es) and/or any vehicles and/or any craft and/or any ship , all, of any type(s) and/or for any purpose(s) and/or of any nature(s) used literally anywhere including the entire universe and space e.g., on water, in water, on any fluid, in any fluid, on any gas, in any gas, on land, in land, on earth, in earth, on or in any part of earth and/or on and in any part of any planet and/or any part of any heavenly body, in any atmosphere(s), in space, and Claim 2, includes that although CTFF (Redirected MPOIFs) may seem unusable for movement and/or propulsion (herein “propulsion” and/or “propelling”) because CTFF is caused by the RR mass(es) not being allowed to move outward and/or inward radially from the axis (held fixed in those respects), there is a way to use CTFF for kinetic energy and that is by creating imbalances of CTFF on different sides of the axis, i.e., making the movement for kinetic energy happen to the entire revolving system while the axis and arrangements(s) of structure(s) are holding the revolving mass(es) stationary in respect to their moving toward and/or away from their axis, and in this way CTFF is made to provide usable kinetic energy for propulsion and/or movement, and when CTFF is controlled such that CTFF is pulling and pushing orthogonally toward the axis on

one side of the axis and CTFF is pulling and pushing orthogonally away from the axis on the other side of the axis, then the CTFF on each side of the axis are no longer pulling and pushing in opposition to each other but are pushing and pulling in the same direction and there is controllable propulsion, and even if CTFF is in opposing directions but with unequal force on different sides of the axis there is still propulsion, and electricity and/or any energy from any source can charge and/or power this propulsion and/or movement ( herein "propulsion" ) system, and needed for this propulsion and/or controlling of this propulsion are many arrangement(s) of structure(s), sophisticated electronics, sophisticated mechanical engineering, and the other many needed disciplines, and this propulsion can be controlled to propel in any direction, in 3 dimensions by a design example (see Fig. 4) that one of endless possible examples follows, this example uses two revolving rings (only one ring is shown in Fig. 4) held and revolved by arms and/or any suitable structure(s) (not shown in Fig.4) and the 2 rings [rings are not necessary and other suitable arrangement(s) of structure(s) such as arms etc. could hold the distributed rotating mass(es)], and the two rings in this example are located perpendicular to each other for this example, and each ring has distributed masses around its periphery and the ring(s) can revolve in either revolving direction and/or in one revolving direction as a design choice and each ring has it so that their distributed mass(es) rotate in one rotating direction and/or in either rotating direction as a design choice, in the same plane that their respective ring revolves, and this first described rotation(s) of the distributed mass(es) are called here, ("Rotation One(s)") and Rotation One(s) of the distributed mass(es) are to control the CTFF's direction of the distributed masses and/or any other mass(es) that become effected, pushing and/or pulling either radially toward or radially away from the axis of the ring(s), but for optimal and/or most forceful propulsion, it is necessary to have the direction of the pushing and pulling of the distributed masses be such that on one side of the ring(s)'s axis, there is radial pushing and pulling toward the ring's axis and on the other side of the ring(s)'s axis there is radial pushing and pulling away from the ring(s)'s axis (assuming more than 1 distributed mass which is likely) and this requires reversing the rotational direction of the Rotation Ones on different sides of the axis of the ring(s) and this needs to be done at high rpm because the ring(s) are revolving at high rpm and one way to accomplish this is to add another rotational direction to the distributed mass(es), called here ("Rotation Two(s")"), where the distributed mass(es) rotate orthogonally (radially) relative to their respective ring(s)'s axis, in either rotating direction and/or in one rotating direction as a

design choice, and in this way the rotational direction of the Rotations One(s) can be reversed at high rpm by a 180 degree rotation of Rotation Two(s), and assuming a start position of the Rotation One(s) being in the same plane as their respective ring(s), the Rotation One(s) either pulling away or toward the axis of their respective ring begins being reversed after 90 degrees of rotation of "Rotation Two(s), and now endless possible arrangement(s) of imbalances can be used for propulsion with the strength of the imbalances being able to be increased and/or decreased along the ring(s)'s radii, and with the coordination of both Rotation One(s) and/or Rotation Two(s) and/or their respective ring's revolving there is propulsion and/or control of propulsion in any direction in the plane of that respective ring and when the propulsion and/or control of propulsion is coordinated between two rings (perpendicular to each other in this example), propulsion in any direction in 3 dimensions can be accomplished and a design possibility of this example is that one ring could be a larger more powerful ring and the second ring might be smaller symmetrically perpendicular ring placed on either side of the plane of the revolving larger ring and the opposite side of the plane of the larger revolving ring in this example would lend itself to being the main area of a spaceship/spacecraft and/or any type of craft of any nature where people may live and/or work and/or travel, but design choices are endless such as any number of ring(s) and/or any number of distributed masses, any positioning of any parts of any nature of the entire system without exception and/or limitation, and when significant power is needed to overcome gravity during takeoff and landing and/or because of being close to a strong gravity force and/or for any other reason, this propulsion system is also a highly efficient revolving/rotational energy storage system as explained in Claim 1 that will have and be able to provide substantial energy when needed, and solar arrays could be one of any suitable charging source(s) for the propulsion system and/or control of the propulsion system and the propulsion system could be controlled to provide electricity using a reverse dynamo and/or other methods and the speeds achievable for space travel using this propulsion will likely be vastly greater than using chemical propulsion, and although invention(s) have been explained in relation to a very general embodiment of the invention(s), it is to be understood that many possible modifications and variations can be made without departing from the spirit and scope of the invention(s).

**Claim 3:** Claim is monopolistic for the reasons covered in the DETAILED DESCRIPTION OF INVENTION(S) and throughout the entire Patent including the Claims and the general methods and general principles of Claim 1 and/or anywhere else in this entire patent are incorporated here by reference where reasonable and/or applicable and Claim 3 is the “AHRRF to machine(s)”, the invention(s) comprising general principals and/or general methods provided anywhere in this entire Patent to improve any type of “wind turbines” (“WT”s), e.g., HAWTS, VAWTS, Savonius, and/or Darreus etc., in any way in any location including space, and WTs of Claim 3 are for use in utilizing any flow(s) of any fluids (any gas) and/or water (any fluid) and/or flows of any type(s) of any nature(s) including flows of any energy, all of type(s) for any purpose(s) of any nature(s) to use in any way for any purpose(s) of any nature(s) for energy, and Claim 3 uses and/or comprises other corrected science that is relevant and/or more relevant to Claim 3, and Claim 3 includes the additional understandings and/or applications in Claim 3, and as an example, considering a typical Horizontal Axis Wind Turbine (“HAWT”) seen in most commercial uses of WTs and instead of using 3 large 60 meter rotor blades (“RB”s) for this example, substitute 3 arrays (3 smaller 20 meter RBs in HAWT arrangement(s) and have the 3 arrays revolve around an axis of the larger HAWT wind turbine system comprised of the 3 arrays, reasonably synchronously, then the overall CTFF of the system would be far less and the rotor blades (“RB”s) would be able to likely be made wider especially at the extremities of the RBs because of their being less CTFF in the 3 arrays and/or the entire system of combined arrays, producing far greater electricity per square meter of wind path, and the smaller WT arrays may have any number of RBs around their respective axes and there be any number of arrays around the axis of the entire WT’s system(s), and the RBs angularities in the arrays must also coordinate with the angularities of the 3 arrays in this example in respect to revolving around the entire WT and not only will these WTs produce more electricity but this goes far in reducing the problem of working with the tremendously large RBs of current WTs and WT companies will resist because WT companies believe that WTs’ efficiencies are vastly higher than what WT’s efficiencies are in reality and this is known because the AHRRF show and/or correct errors that exist in the science of fluid dynamics (flows) that also spills into aerodynamics, first, WT science erroneously believes in “swept area theory” which is the belief that WTs sweep the wind path area they rotate through (within) cumulatively for the wind path’s area’s energy and this has physics rationalizing and/or believing that RBs can behave as if they are in more than one place

at one time and/or what WT scientists say is that the RBs behave as if they are larger than their physical size, and add to this erroneous science that the science of fluid dynamics (flows) uses the “Mass Flow Formula” (“MFF”) to calculate the collisional energy in a flow of a mass(es) with the problem, that the MFF erroneously uses what seems correct, the density, times the area, and times the velocity to calculate the amount of mass per any time interval in a flow, but it is necessary to use twice the physical mass and that is herein called the “energy mass in the MFF” and/or alternatively to not treat flows as isolated (flows of mass(es)) but flows of pressure(s), and if the MFF used pressure versus mass, the power in any flow(s), e.g. wind and/or any flow of water, and/or any flow, the power in the flow(s) will be correctly shown as doubled and/or the same result is arrived at by using twice the physical mass as the mass using again what is called here, the “energy mass” in the MFF and in the wind power formula because when wind collides (described better as flowing pressures and/or colliding/pressures), wind’s force does not diminish to zero like at the end of a finite collision of an individual mass but wind’s force at the end of any reasonable time interval stays the same at the end of the collisional /pressuring as at the beginning of the collisional/pressuring, so, to calculate the “energy mass” of a flow you must double the physical mass in a typical collision formula for calculating finite collisions, and it is for this reason that aerodynamics believes lift (a differential of pressure on different sides of an airfoil ) has a doubling effect because aerodynamics’ calculations for wind energy do not use pressure in calculating wind’s force but uses the wind power formula that uses the Mass Flow Formula (MFF) which comprises the error, i.e. the use of the physical mass versus the needed doubling of the physical mass to be an “energy mass” in flow calculations, and another likely reason flows are not seen as flows of pressure is in the analysis of a flowing river for example, there does not easily appear to be a flow of pressure, but that is because physics did not stop to analyze that gravity is in a physics sense the top side of the river and the flow is continually pressurized by gravity, and without considering this physics did not correctly analyze that the physical mass has to be doubled to be an effective energy mass in the MFF and/or that physics should make the calculations of flows using (flows of pressures) and seeing gravity at work in this way in this system, opens the door to seeing twice the energy in flows, because flows are not just the energy of the mass flowing but the mass is under a pressurizing force, i.e., gravity, and moving to wind, gravity makes all the sides for wind, other than the earth side(s) and/or water side of wind and this may be more difficult to see since there are no real traditional sides and/or

any top in any sense to be seen in connection to the gravity making up walls and the ceiling but there are compressing walls and/or a compressing ceiling(s) of sorts to pressure the air, the walls and/or ceiling are just unimaginably amorphous and generally spread everywhere since other air and/or wind confine other air and/or wind , all, pulled on by gravity, the force behind wind and/or water flows, and the direction of the pressurized flow is determined in rivers by the slope of the riverbed and with wind, its direction is determined in a general amorphous way that has wind flowing often in fits and starts (gusts etc.) from a general region of higher pressure to a general region of lower pressure but the power of wind is from gravity although sunlight and different heating and/or cooling rates of the earth and/or its waters set up the conditions that constantly has gravity at work equalizing air pressure because the denser the air the harder gravity pulls on the air, and seeing gravity behind flows makes it easier to correctly analyze that there is twice the energy in flows but the amount of energy in flows is hugely greater than just twice and that is because wind(s)' energy for example is vastly under calculated for another reason and that is because in the wind power formula,  $v$  (velocity) is cubed, i.e.,  $v^3$ , when  $v$  correctly is  $v^4$  ( $v$  to the 4<sup>th</sup> power), because flows can deliver their full energy (pressure/collisional energy) while travelling at their full velocity(s) which is very different from how people experience wind and/or other flows with their senses because the velocity of the wind colliding/pressuring a person seems the greatest when the person is still and/or for that matter moving into the wind (and the pressure is greater to some extent but not considered here) since Claim 3 is about utilizing flows for energy and when wind's energy is utilized at less than wind's full velocity and/or any flow, there is wind's and/or any flow's diversion(s) etc. with more and more of wind's kinetic energy and/or any flows kinetic energy lost the slower the velocity in the direction of the action of whatever is being utilized to harness the flow, e.g. RBs in WTS, and in aerodynamics,  $v^4$  ( $v$  to the 4<sup>th</sup> power), is most often not applicable, and  $v^3$  is correct because aerodynamics is most often dealing with apparent wind, i.e., wind that the airplanes, jets, and/or rockets (also true for crafts in flows of water etc.) make by their own movement into the air and/or any flow and apparent wind cannot be used like real wind because if any aircraft for example tried to go in the direction of the apparent wind, the apparent wind disappears because it is the aircraft's own movement into the wind that generates the apparent wind, and if winds velocity where 20 mph and wind was utilized by RBs that were themselves moving back from the wind at 10 mph, (moving back is not an actual moving back as often

thought of and is a practical function of RBs' due to their angularity to the wind) the wind formula should use approximately  $v^{3.5}$  in this case, so, the wind power formula and/or the formulas for any flow(s) is better redone, because although aerodynamics using the erroneous Theory of Lift that adequately offsets the error in the MFF, the corrected science will provide even better outcomes and allow more easily for aerodynamic advancement even beyond the great current result(s) using erroneous science that offsets its errors but the important takeaway for Claim 3 is that there is vastly more energy in wind and/or flows than currently believed and WTs can utilize more wind energy by using the invention(s) of Claim 3, and the theory of lift does not exist in any significant way in aerodynamics because any disparate pressures on different sides of an airfoil are quickly filled in and/or absorbed by the surrounding air and what lift is believed to provide is the result(s) that the collisional/pressures from wind corresponding to the pressures measured around airfoil(s) are undercalculated at 50 percent of their energy because of the error in the MFF that is part of the wind power formula aerodynamics use, and although invention(s) have been explained in relation to a general embodiment of the invention(s), it is to be understood that many possible modifications and variations can be made without departing from the spirit and scope of the invention(s).

## ABSTRACT

Although the science here may seem hard to believe and/or accept, Claim 1, the use of synchronous revolving and rotations could be proved out in a week and then the propulsion of Claim 2 becomes a near foregone conclusion as does synchronous WTs in Claim 3, and this Patent's is for new and/or different and/or improved uses in the revolving (orbiting) and/or the rotating and/or the moving and/or propelling and/or controlling of propelling in any direction(s) in any way of any Mass(es).

3 Pages of 4 Drawings attached.

8 Pages of Patent filing documentation attached.

Fig. 1

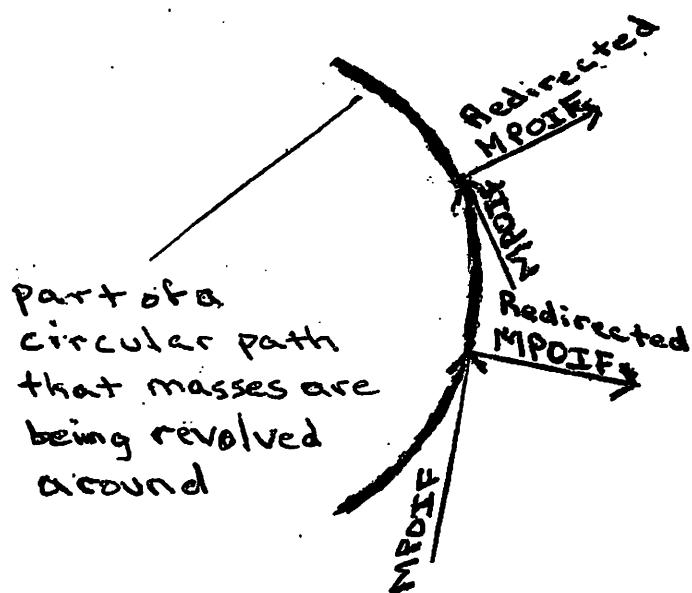


Fig. 2

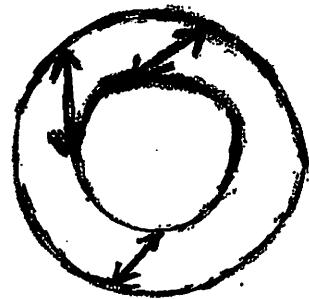


Fig. 3

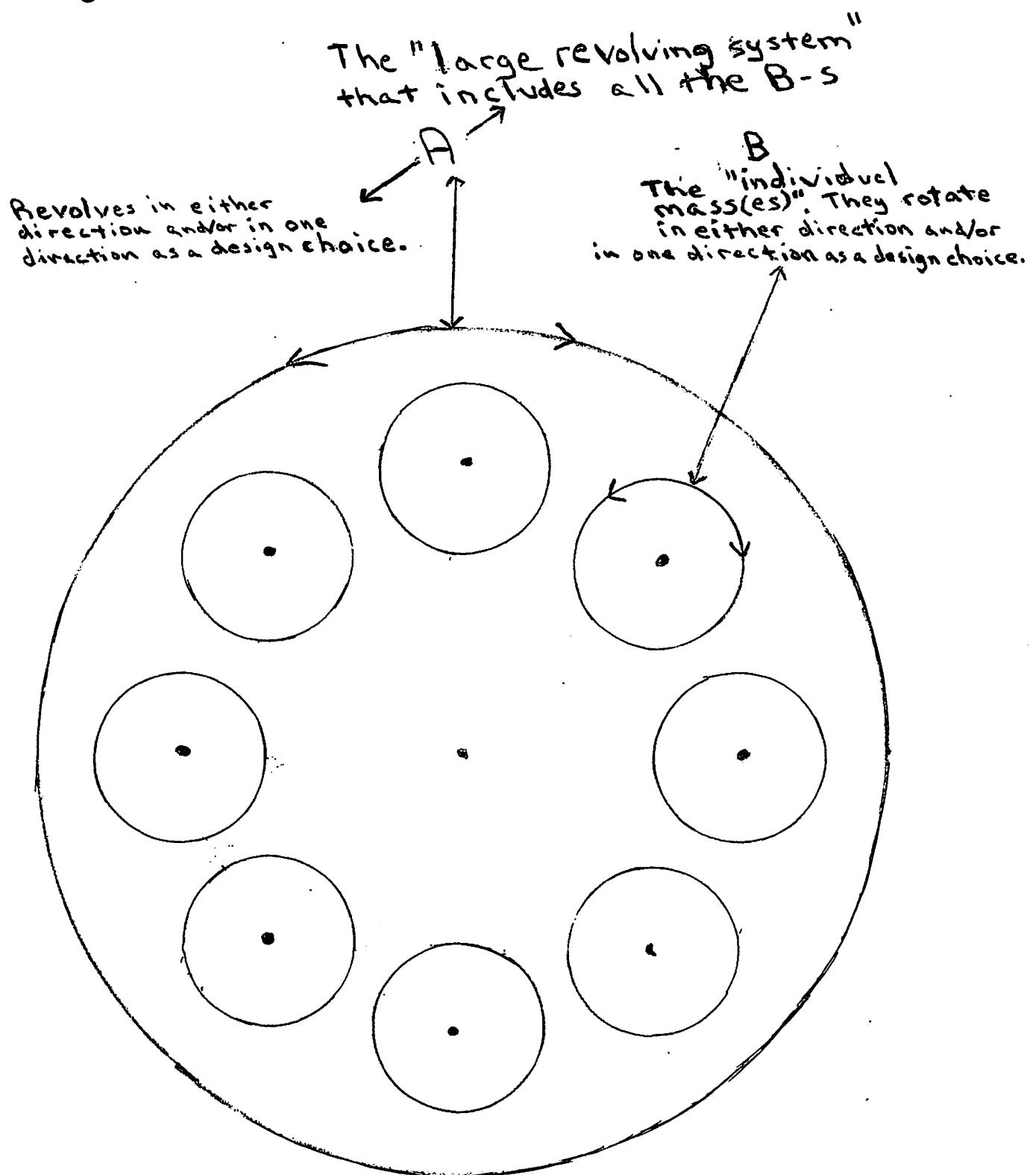
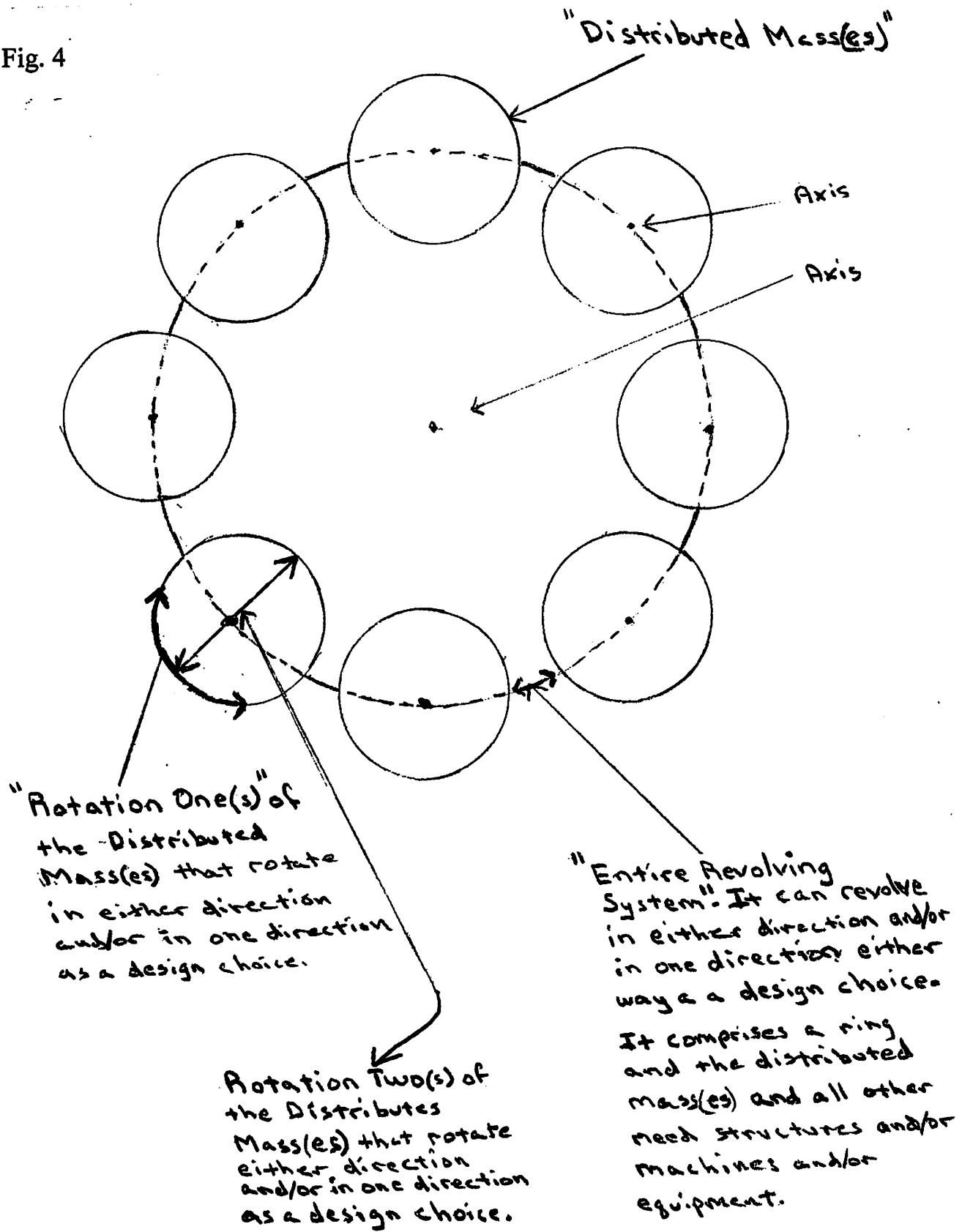


Fig. 4



## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	42703116
<b>Application Number:</b>	63187516
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	2936
<b>Title of Invention:</b>	Advancements in Revolving, Rotating, Moving, and/or Propelling
<b>First Named Inventor/Applicant Name:</b>	Henry Ivers
<b>Customer Number:</b>	144773
<b>Filer:</b>	Henry Ivers
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	
<b>Receipt Date:</b>	12-MAY-2021
<b>Filing Date:</b>	
<b>Time Stamp:</b>	13:08:57
<b>Application Type:</b>	Provisional

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**File Listing:**

Document Number	Document Description	File Name	File Size(Bytes)/Message Digest	Multi Part/.zip	Pages (if appl.)
1	Provisional Cover Sheet (SB16)	CoverSheetforProvisionalPatentforAHRRF.pdf	300352 e1dae8a29fd7a1f7b02bc18ba0198c6f6077c007	no	3

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2	Specification	ProvRotPatent-15pages-5-11-2021.pdf	235648 06fb9134092b639d2ff099fd2fffc2a46a1893e0d	no	15
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**Warnings:****Information:**

3	Drawings-only black and white line drawings	3pagesof4Figures.pdf	80225 fc1cebc596512c01856464822013bc9a496b375f	no	3
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**Warnings:****Information:**

4	Fee Worksheet (SB06)	fee-info.pdf	29117 5bc8b4cd0d6aa816779e8838d5937edf295cc1a5d	no	2
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**PROVISIONAL APPLICATION FOR PATENT COVER SHEET – Page 1 of 2**

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c).

Priority Mail Express® Label No. \_\_\_\_\_

INVENTOR(S)		
Given Name (first and middle [if any])	Family Name or Surname	Residence (City and either State or Foreign Country)
Henry	Ivers	Swampscott, MA
Additional Inventors are being named on the _____ separately numbered sheets attached hereto.		
<b>TITLE OF THE INVENTION (500 characters max):</b>		
Advancements in Revolving, Rotating, Moving, and/or Propelling		
Direct all correspondence to: <b>CORRESPONDENCE ADDRESS</b>		
<input type="checkbox"/> The address corresponding to Customer Number: <div style="border: 1px solid black; padding: 2px; display: inline-block;">000144773</div>		
OR		
<input checked="" type="checkbox"/> Firm or Individual Name <b>Henry Ivers</b>		
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Country	Telephone 781-596-0991	Email <a href="mailto:caliban333@outlook.com">caliban333@outlook.com</a>
<b>ENCLOSED APPLICATION PARTS (check all that apply)</b>		
<input type="checkbox"/> Application Data Sheet. See 37 CFR 1.76. <input type="checkbox"/> CD(s), Number of CDs _____ <input checked="" type="checkbox"/> Drawing(s) <b>Number of Sheets 3</b> <input type="checkbox"/> Other (specify) _____ <input checked="" type="checkbox"/> Specification (e.g., description of the invention) <b>Number of Pages 15</b>		
<b>Fees Due:</b> Filing Fee of \$300 (\$150 for small entity) (\$75 for micro entity). If the specification and drawings exceed 100 sheets of paper, an application size fee is also due, which is \$420 (\$210 for small entity) (\$105 for micro entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).		
<b>METHOD OF PAYMENT OF THE FILING FEE AND APPLICATION SIZE FEE FOR THIS PROVISIONAL APPLICATION FOR PATENT</b>		
<input checked="" type="checkbox"/> Applicant asserts small entity status. See 37 CFR 1.27. <input type="checkbox"/> Applicant certifies micro entity status. See 37 CFR 1.29. Applicant must attach form PTO/SB/15A or B or equivalent. <input type="checkbox"/> A check or money order made payable to the <i>Director of the United States Patent and Trademark Office</i> is enclosed to cover the filing fee and application size fee (if applicable). <input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached. <input type="checkbox"/> The Director is hereby authorized to charge the filing fee and application size fee (if applicable) or credit any overpayment to Deposit Account Number: _____.		<b>150</b>
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This collection of information is required by 37 CFR 1.51. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 10 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PTO/SB/16 (10-20)

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The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government. (NOTE: Providing this information on a provisional cover sheet, such as this Provisional Application for Patent Cover Sheet (Form PTO/SB/16), does not satisfy the requirement of 35 U.S.C. 202(c)(6), which requires that the *specification* contain a statement specifying that the invention was made with Government support and that the Government has certain rights in the invention.)

 No. Yes, the invention was made by an agency of the U.S. Government. The U.S. Government agency name is: \_\_\_\_\_ Yes, the invention was made under a contract with an agency of the U.S. Government.

The contract number is: \_\_\_\_\_

The U.S. Government agency name is: \_\_\_\_\_

In accordance with 35 U.S.C. 202(c)(6) and 37 CFR 401.14(f)(4), the specifications of any United States patent applications and any patent issuing thereon covering the invention, including the enclosed provisional application, must state the following:

"This invention was made with government support under [IDENTIFY THE CONTRACT] awarded by [IDENTIFY THE FEDERAL AGENCY]. The government has certain rights in the invention."

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SIGNATURE /Henry Ivers/ DATE 5/12/2021

TYPED OR PRINTED NAME Henry Ivers REGISTRATION NO. \_\_\_\_\_  
(if appropriate)

TELEPHONE 781-596-0991 DOCKET NUMBER \_\_\_\_\_

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
63/187,516	05/12/2021	150				

**CONFIRMATION NO. 2936**

144773  
 Henry Ivers  
 73 Puritan Rd  
 Swampscott, MA 01907

**FILING RECEIPT**



UC000000125724732

Date Mailed: 05/19/2021

Receipt is acknowledged of this provisional patent application. It will not be examined for patentability and will become abandoned not later than twelve months after its filing date. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

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**Inventor(s)**

Henry Ivers, Swampscott, MA;

**Applicant(s)**

Henry Ivers, Swampscott, MA;

**Power of Attorney:** None

**Permission to Access Application via Priority Document Exchange:** No

**Permission to Access Search Results:** No

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

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The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 63/187,516**

**Projected Publication Date:** None, application is not eligible for pre-grant publication

**Non-Publication Request:** No

**Early Publication Request:** No

**\*\* SMALL ENTITY \*\***

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